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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,591	08/14/2001	Louis L. Hsu	728-216 (YOR9-2001-0444 U	9143

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EXAMINER

NGUYEN, DANNY

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,591

Applicant(s)

HSU ET AL.

Examiner

Danny Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6, and 12-16, 21, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Keeth (USPN 5,946,257).

Regarding to claims 1, 2, 12, Keeth discloses an integrated circuit system (see fig. 8) having a plurality of macros (memory arrays 801(1) to 801(8)), the integrated circuit comprises an external voltage supply input (the external supply input voltage Vcc) configured to supply an external voltage to the integrated circuit; and a plurality of internal voltage supply generators (a plurality of isolated supply voltage generators 70 in fig. 1, each of isolated supply voltage comprises circuit 804 and 806, see col. 8, lines 46-53), each connected to a respective macro (memory array) of the plurality of macros and configured for receiving the external voltage for generating an internal voltage supply for operating its respective macro, wherein each of the plurality of the internal voltage supply generators includes circuitry (1000) for generating the internal voltage supply and circuitry for disconnecting at least a portion of its respective macro(see col. 9, lines 60-65).

Regarding to claim 3, Keeth discloses the external voltage is greater than the internal voltage (the internal supply voltage is approximately one half of the external supply voltage Vcc, see col. 9, lines 9, line 58).

Regarding to claims 4,13, and 21 Keeth discloses a scan-chain formed by a chain of scannable register latches storing fuse information and switch enable/disable signal (see col. 4, lines 53-57).

Regarding to claims 5, 6, 14, 15, Keeth discloses each of the plurality of internal voltage generators comprises a reference voltage generator (1004) for generating and providing a reference voltage for driving at least one voltage generator (see fig. 10).

Regarding to claim 16, Keeth discloses the at least one of the plurality of internal supply voltage generators is selected from the group of consisting of a substrate bias level voltage generator, a negative word line level voltage generator, and a boosted word line high level voltage generator (see col. 10, lines 48-50).

Regarding to claim 22, Keeth discloses a means (819) for performing a built-in self-test for testing the DC voltage generator system (see col. 3, lines 50-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-11, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeth in view of Sher et al. (USPN 6,496,027).

Regarding to claims 7-10, Keeth discloses a reference supply unit (1004) for generating at least one of a voltage level and current level; a voltage limiter (1002) coupled to the reference supply unit for controlling a voltage output level outputted from the voltage limiter; and a charge pump (capacitor, see fig. 10) for receiving voltage level for generating the internal voltage supply. Keeth does not disclose an oscillator and a feedback voltage provided from the charge pump. Sher et al. disclose an oscillator (130) and a feedback voltage (see fig. 10). It would have been obvious to one having skill in the art at the time the invention was made to modify the system of Keeth with an oscillator and a feedback voltage to produce the internal supply voltage to the memory arrays and enable the internal supply circuit to respond to a change in the voltage.

Claim 11 repeats limitations of claim 4; therefore, it is rejected accordingly.

Claims 17-20 repeat limitations of claims 7-10; therefore, they are rejected accordingly.

Response to Arguments

3. Applicant's arguments filed 06/06/2003 have been fully considered but they are not persuasive.

Regarding to claims 1 and 12, applicant argued that the Keeth reference does not disclose a plurality of internal voltage supply generators configured for receiving the external voltage for generating an internal voltage supply for operating its respective macro. However, Keeth discloses that a plurality of internal voltage supply generators (804 (1) to 804 (8), see fig. 8, and fig. 10 shown a embodiment of a voltage generator to be used as voltage generator 804) configured for receiving the external voltage (such as

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voltage reference Vref (1004) shown in fig. 10) for generating an internal voltage supply for operating its respective macro (see col. 9, lines 55-58 and col. 12, lines 24-27).

Thus, the applicant's arguments of claims 1 and 12 do not distinguish over the Keeth reference.

4. Applicant argued that the Sher reference is improper as the patent was issued on Dec. 17, 2002 and its disclosure was unavailable to those skilled in the art at the time the invention was made. The argument is not persuasive because the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

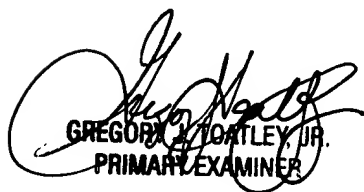
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DN
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July 25, 2003


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER